

# FlexxRay

By Oxxius

<b>Gamme</b>	CW & Modulated Lasers
<b>Title</b>	FlexxRay 473 nm
<b>Reference</b>	LBX-473
	<p>The FlexxRay LBX-473 is a compact 473 nm laser source delivering one of the highest power available on the market over a beam of superior quality, and featuring a high-speed modulation. Its integrated control electronics and robust design suit both laboratory and industrial use. Performance, stability, and versatility make it a trusted solution for fluorescence-based microscopy, optogenetics and illumination.</p>
<b>Description</b>	<p><b>Key features</b></p> <ul style="list-style-type: none"><li>• TEM<sub>00</sub> spatial mode</li><li>• ±0.5% long-term power stability; low optical noise</li><li>• Modulation up to 150 MHz</li><li>• Integrated control electronics</li><li>• 100×40 mm industry-standard footprint</li></ul> <p>Fully compatible with Oxxius MixxWave combiners for single-mode fiber delivery alongside other laser lines.</p>



## Product Variations

Part Number	Puissance
LBX-473-100-CSB-PPA	100mW
LBX-473-300-CSB-PPA	300mW

## Optical Characteristics

Emission wavelength	473 nm
Tolerance	(±5nm tolerance)

<b>Control modes</b>	Automated power control, Automated current control
<b>Optical noise</b>	$\leq 0.2\%$ rms, 10Hz-20MHz bandwidth
<b>Spectral linewidth</b>	$\leq 2\text{nm}$
<b>Digital modulation function - Rise / fall time</b>	$\leq 2\text{ns}$
<b>Digital modulation function - Bandwidth</b>	$\geq 150\text{MHz}$
<b>Analog modulation function - Rise / fall time</b>	$\leq 150\text{ns}$
<b>Analog modulation function - Bandwidth</b>	$\geq 3\text{MHz}$
<b>Beam diameter, 1/e<sup>2</sup> level, 50mm from the beam aperture</b>	$0.8 \pm 0.2\text{mm}$
<b>Beam divergence, 1/e<sup>2</sup> level full beam, far field</b>	$\leq 1.3\text{mrad}$
<b>Beam quality factor M<sup>2</sup></b>	$\leq 1.25$
<b>Beam circularity, far field</b>	$\geq 90\%$
<b>Polarization state</b>	Linear, vertical, extinction ratio $\geq 20\text{dB}$

## General Specifications

<b>Power consumption</b>	10W max.
<b>Supply voltage</b>	5V to 12V
<b>Operating temperature</b>	10°C to 50°C
<b>Storage temperature and humidity</b>	0°C to 60°C
<b>Warm up time</b>	$\leq 2$ minutes
<b>Interfaces</b>	USB, RS-232, direct modulation inputs
<b>Dimensions (laser head)</b>	100x40x40 mm
<b>Weight (laser head)</b>	$\leq 330$ g
<b>Controller dimensions</b>	106x126x56 mm
<b>Compliance</b>	CE (incl. IEC 60825-1) and FDA 21 CFR 1040.10 / 1040.11
<b>Laser class</b>	3B
<b>Warranty</b>	24 months or 10000 hours, whichever occurs first

## Options

<b>Option 1</b>	Single-mode fiber coupling
<b>Option 2</b>	Multimode fiber coupling
<b>Option 3</b>	Heat management
<b>Option 4</b>	Electromechanical shutter
<b>Option 5</b>	Band-pass filter

<b>Option 6</b>	OEM version
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